REMARKS

By the present amendment, previous amendments to claim 1 have been reversed, and claim 1 has been amended to specify that Re (retardation value in normal direction) of the optically compensating B-layer is about 0, and accordingly, that the polarizing plate is for a VA-type liquid crystal cell. Support for the modifications is found in the original application, for example, Table 1 on page 44 and page 45, lines 11-14.

New claims 16-17 dependent on claim 1 have been added to recite features deleted from claim 1.

New claim 18 has been added. Support for the added recitations is found in the original application, for example, page 45, lines 11-14.

Claims 1-9 and 16-18 are pending in the present application. Claim 1 is the only independent claim.

Art rejections

In the Office Action, claims 1, 5-6 and 8-9 are rejected under 35 U.S.C. 103(a) as obvious over US 6,867,834 to Coates et al. ("Coates") in view of US 6,888,598 to Kim et al. ("Kim") and further in view of US 6,773,766 to Meyer et al. ("Meyer").

Further, claim 7 is rejected under 35 U.S.C. 103(a) as obvious over Coates in view of Kim and Meyer and further in view of US 6,342,934 to Kameyama et al. ("Kameyama").

Reconsideration and withdrawal of the rejections is respectfully requested.

As a preliminary, it is submitted that, in the presently claimed invention, the optically compensating A-layer is similar to a positive A plate at least in some respect, i.e., in that the

optically compensating A-layer satisfies the condition of Formula (II) ($1.2 \leq Rth/Re$), whereas the optically compensating B-layer is similar to a negative C plate at least in some respect, in that Re is about 0. Thus, it is submitted that the polarizing plate of the presently claimed invention may be used with a VA-type liquid crystal cell, as discussed and exemplified in the present specification (see in particular Examples 4-6).

In contrast, Coates relates to a polarizing plate with an optical compensation function which is based mainly on the combination of an O-plate and an A-plate. More specifically, the optical compensator of Coates comprises a low-tilt A plate 4 which is a polymer film (see Coates at col. 10, line 26) and a highly twisted A plate 6 comprising a liquid crystal material, e.g., a cholesteric material (see Coates at col. 11, line 27). The optical compensator of Coates may also include a negative C plate 5 but this plate 5 is provided as a substrate made of a "uniaxially compressed plastic film" (Coates at col. 10, line 48). Coates is completely silent regarding cholesteric material to form a negative C plate, let alone combining a polymer positive A plate to form an optically compensating layer.

Furthermore, the polarizing plate with an optical compensation function of Coates is for a TN-type liquid crystal cell (see Coates at col. 6, line 65 to col. 7, line 10). Thus, Coates does not provide any motivation or incentive regarding which optically compensating functions would be adaptable for other types of displays, let alone for a VA-type liquid crystal display.

More specifically, differences between compensation objectives in VA-type and TN-type liquid crystal cells are illustrated schematically in the attachment submitted with this paper.

A TN-type liquid crystal cell contains bar-shaped liquid crystal that is tilted with respect

to a plane and is twisted (see FIG. 2 of the attachment). FIG. 2 of the attachment corresponds to a construction as in Fig. 3 of Coates. The TN-type liquid crystal cell is denoted by reference numeral 1. In Coates, a low tilt A-plate and a sprayed O-plate are placed on one surface of such a TN-type liquid crystal cell. FIGS. 3 and 4 of the attachment illustrate a mechanism of optical compensation by the A-plate and the O-plate. In FIG. 3 of the attachment, if the TN-type liquid crystal cell, the A-plate, and the O-plate are summed up, a relationship: nx = ny = nz (spherical surface) is substantially obtained. The negative C plate compensates for a portion that is insufficient in the compensation by the A-plate and the O-plate, whereby optical compensation is performed.

In contrast, in a VA-type liquid crystal cell, liquid crystal stands vertically to a plane (see FIG. 1 of the attachment). The VA-type liquid crystal cell has a refractive index in an nz-direction. When the polarizing plate with an optical compensation function is placed on one surface of such a liquid crystal cell, the optically compensating A-layer satisfies a relationship: nx > ny = nz (positive A plate), so that this layer has a refractive index in an nx-direction. Furthermore, the optically compensating B-layer satisfies a relationship: nx = ny > nz (negative C plate), so that this layer has a refractive index in the nx-direction and the ny-direction. Then, when the liquid crystal cell, the optically compensating A-layer, and the optically compensating B-layer are summed up, a relationship: nx = ny = nz (spherical surface) is substantially obtained. If the refractive indices in three directions become substantially equal to each other, optical compensation can be considered to be performed (see FIG. 1 of the attachment).

In summary, the principle of the optical compensation of Coates is completely different

from that of the optical compensation for a VA-type liquid crystal cell, so that Coates does not provide any teaching or suggestion regarding optical compensation for a VA-type liquid crystal display. Therefore, a person of ordinary skill in the art would not have found any motivation or incentive in Coates to modify the optical compensator of Coates, let alone motivation or incentive to attempt the combination of an optically compensating A-layer comprising a polymer film and meeting requirements indicated by formulae (I) and (II) and an optically compensating B-layer comprising a cholesteric liquid crystal layer and having Re of about 0, as recited in present claim 1.

Further, Kim and Meyer fail to remedy these deficiencies of Coates. Therefore, the present claims are not obvious over the cited references taken alone or in any combination.

In view of the above, it is submitted that the rejections should be withdrawn.

Conclusion

In conclusion, the invention as presently claimed is patentable. It is believed that the claims are in allowable condition and a notice to that effect is earnestly requested.

If there is, in the Examiner's opinion, any outstanding issue and such issue may be resolved by means of a telephone interview, the Examiner is respectfully requested to contact the undersigned attorney at the telephone number listed below.

If this paper is not considered to be timely filed, the Applicants hereby petition for an appropriate extension of the response period. Please charge the fee for such extension and any other fees which may be required to our Deposit Account No. 50-2866.

Respectfully submitted,

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